

## **REMARKS**

### **I. The Office Action**

The Office maintained the rejection of claims 28, 29, 31-38, 43, 44, 47, and 48 under 35 U.S.C. § 102(b) for allegedly being anticipated by U.S. Patent 4,792,447 (“the Uhr patent”). Claims 28-38, 43, 44, 47, and 48 were rejected under 35 U.S.C. § 103(a) for allegedly being obvious in view of the Uhr patent taken with Bergsagel et al., *Blood*, 85, 436-447 (1995) (“the Bergsagel article”). The Office also maintained the rejection of claims 28, 29, and 31-48 under 35 U.S.C. § 103(a) for allegedly being obvious in view of the Uhr patent taken with U.S. Patent Publication No. 2005/0255532 (“the Ruben publication”). Reconsideration of the rejections is respectfully requested.

### **II. Amendments to the Claims**

Claims 28, 33, 38, 40, 43, 47, and 48 have been amended to recite that the anti-LMA antibody or LMA ligand conjugate does not bind light chain associated with a heavy chain, an amendment supported by the specification at, e.g., page 42, lines 18-26. Claims 33, 40, 41, 43, and 48 have been amended to standardize language used in the claims and correct matters of form. No new matter has been added by way of these amendments.

### **III. The Section 102(b) Rejection Should Be Withdrawn.**

The Office rejected claims 28, 29, 31-38, 43, 44, 47, and 48 under Section 102(b) for allegedly being anticipated by the Uhr patent. The rejection is respectfully traversed.

A Section 102(b) rejection is proper only when the cited reference discloses each and every feature of the pending claims. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 USPQ 773, 777 (Fed. Cir. 1985) (“[A]nticipation under § 102 can be found only when the reference discloses exactly what is claimed.”). According to the Office, the Uhr patent discloses an antibody against lambda light chain on tumor cells. In fact, the Uhr patent discloses antibodies directed against *intact* immunoglobulins. For example, at column four, first paragraph, the Uhr patent discloses that the described antibodies may bind a

collective class of immunoglobulins by targeting the  $\lambda$  or  $\kappa$  light chain portion of an *intact* immunoglobulin. Intact immunoglobulins are expressed on both tumor and normal B-cells.

In contrast, the pending claims are directed, at least in part, to methods of using an anti-LMA antibody or LMA ligand that specifically binds LMA *and does not bind light chain associated with a heavy chain*, as well as a pharmaceutical composition comprising the anti-LMA antibody and the anti-LMA antibody conjugated to a cytotoxic moiety or biological modifier labeled with a detectable moiety. The Uhr patent does not teach or suggest an antibody or ligand that binds surface expressed *free* lambda light chain that is not associated with a heavy chain. Unlike the LMA target bound by the Uhr antibodies, free LMA is a target which is selective for tumor B-cells. Because the Uhr patent fails to disclose exactly what is claimed, the Section 102(b) rejection is improper and should be withdrawn.

The Office has not disputed Applicants' characterization of the Uhr patent, but has maintained its rejection on the basis that "[a]pplicants arguments involve limitations currently not recited in the claims under consideration." (Office Action, page 3.) The claim amendments presented herein address this alleged shortcoming and render moot the rejection.

#### **IV. The Section 103(a) Rejection Should Be Withdrawn.**

The Office rejected claims 28-48 under Section 103(a) for allegedly being obvious in view of the Uhr patent taken with the Bergsagel article and/or the Ruben publication. However, the subject matter of the pending claims is not obvious in view of the Uhr patent, the Bergsagel article, and the Ruben publication because the cited references fail to teach or suggest an anti-LMA antibody or a LMA ligand as recited in the pending claims.

The Office asserted that the Uhr patent discusses antibodies against lambda light chain, and the previous claims encompassed anti-LMA antibodies that bind light chain associated with a heavy chain. As explained above, however, the amended claims are directed to anti-LMA antibodies or LMA ligand conjugates that do not bind light chains associated with a heavy chain, and to methods of using the antibody or LMA ligand conjugate. The Uhr patent discloses antibodies against intact immunoglobulin, not antibodies

or ligands that bind free lambda light chain which is not associated to a heavy chain, as claimed. The secondary references do not cure the deficiencies of the Uhr patent in this regard. The Bergsagel article describes the identification of clonotypic B-cells in blood samples via analyzing immunoglobulin heavy chain rearrangements. Like the Uhr patent, the Bergsagel article discusses  $\kappa$  or  $\lambda$  light chains only in the context of *intact* immunoglobulin (comprising light chains associated with heavy chains), which is expressed on normal *and* tumor cells. The Bergsagel article does not teach or suggest that *free* lambda light chain is present on the surface of multiple myeloma cells. The Rubin publication purportedly discloses therapeutic use of chimeric antibodies, labeled anti-tumor antibodies, and antibody conjugates. Neither secondary reference discloses or suggests an antibody or ligand that binds *free* lambda light chain which is not associated with a heavy chain, as claimed, nor do the references teach or suggest targeting surface-expressed *free* lambda light chain for the treatment of multiple myeloma. Thus, neither the Bergsagel article nor the Ruben publication, taken individually or in combination, cures the defect in the Uhr patent. Accordingly, the rejection under Section 103(a) has been overcome and should be withdrawn.

## V. Conclusion

The application is considered to be in good and proper form for allowance, and the examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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